## Abstract:

5

10

15

The invention refers to a recombination process for recombining a population of heterologous polynucleotides comprising variant groups and/or regions, wherein recombination is performed within one group of polynucleotides and/or between defined regions of polynucleotides by using different restriction sites in different groups and/or regions of polynucleotides. As a result it is possible to carry out recombination with mixtures of several unrelated groups (subsets) of polynucleotides, which recombine due to the use of different restriction sites independently thus increasing diversity while maintaining structurally conserved regions in one reaction. The method can advantageously be carried out without separation of individual components or clones.